REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 20-30 are pending in this application. Claim 20 is independent. Claims 1-17 are canceled without prejudice or disclaimer of subject matter. Support for this amendment is provided throughout the Specification as originally filed. No new matter has been introduced by this amendment. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which the Applicants are entitled.

The specification is hereby amended to correct minor typographical errors.

Claims 1-17 were objected to due to informalities. Claims 1-17 are canceled herein, obviating the objection.

II. OBJECTIONS TO THE DRAWINGS

The Office Action objected to the drawings. The term "diffractive grating structure (31)" has been corrected to read "diffractive grating structure (21)" in new claim 20, obviating this objection.

Concerning "said convex protrusions, said concave recesses, and said embedded portions", Applicants respectfully submit that support is shown in the drawings for each of these

features at least in Figure 1. The convex protrusions are labeled 21p and the concave recesses are labeled 21r. The embedded portions are included in the grating bulk material, which is labeled 21b.

III. REJECTIONS UNDER 35 U.S.C. §112

Previous claims 5 and 6 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 5 and 6 are canceled herein, obviating the rejection.

IV. REJECTIONS UNDER 35 U.S.C. §103(a)

Previous claims 1, 2, and 4-17 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,330,112 to Kaise, et al. in view of U.S. Patent No. 6,822,796 to Takada, et al.

Previous claim 3 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,330,112 to Kaise, et al. in view of U.S. Patent No. 6,822,796 to Takada, et al. and further in view of Japanese Patent JP 406130224A to Hamada.

New claim 20, which corresponds to previous claim 1, recites *inter alia*:

> "wherein said light selecting element (20) is formed as a single optical unit, and
>
> wherein said light selecting element (20) is adapted in order to reflect an s-polarized component of one predefined spectral component of said primary illumination light (Ll) and in order to transmit a p-polarized component of said one predefined spectral component of said primary illumination light (Ll) and s-polarized and p-polarized components of all other spectral components of said primary illumination light (L1)." (emphasis added)

As understood by Applicants, U.S. Patent No. 6,330,112 to Kaise, et al. (hereinafter, merely "Kaise") relates to an optical modulator and an image projection display apparatus that enables a sufficiently bright color image to be displayed without increasing a heating value with a simple and compact structure, which is easily assembled and adjusted.

Applicants respectfully submit that Kaise is directed to polarization and dichroic filtering that is done by different components, which are spatially separated. In the instant application, one single component performs dichroic and polarization filtering.

Furthermore, Applicants respectfully submit that a feature of the instant application is not that the polarization and dichroic selection is done by components acting together, but that one single component performs this operation simultaneously. The fact that Kaise components are spatially separated makes them unpractical for the configuration of the instant application. Moreover it should be noted that in the Kaise architecture, the polarizer reflects s-polarization for all colors and transmits the p-polarization for all colors. This is exactly what is not allowed in the 3-panel architecture described in the instant application where the s-polarization is reflected for one single color only.

As understood by Applicants, U.S. Patent No. 6,822,796 to Takada, et al. (hereinafter, merely "Takada") relates to a diffractive optical element that has a diffraction grating formed by periodic depressions and projections on the surface of a substrate and a dielectric multi-layer film on the diffraction grating.

Additionally, Applicants repectfully submit that Takada teaches that part of the light is reflected at 90 degrees, and part of the light is transmitted. Applicants note that in the present invention, the s-polarized light is reflected for one specific color only, whereas the s-polarized light of complementary colors and the p-polarized light of all incident colors are

transmitted. This color selective reflectivity of s-polarized light is not described by Takada invention, and this step is not obvious.

Furthermore, Applicants submit that Takada does not teach how to configure the grating structure in order to selectively reflect s-polarization light of one color only and transmit s-polarization light of complementary colors (as well as p-polarization of all colors).

As understood by Applicants, in the configuration of Takada (for example, figure 3), the bulk material or substrate (11) as a grating structure which is the covered and filled with the multilayer structure. In the instant application, the bulk material is not structured (but flat), and the grating is formed by the multilayer structure only.

Furthermore, Applicants note that the Office Action states, "[i]t would then have been obvious to one skilled in the art to apply the teaching of Takada et al. to modify the light selecting element, including both the polarization beam splitter and the dichroic mirrors of Kaise to make them into a single diffractive grating structure with dichroic multilayer structure for the benefit of using one single diffractive grating element to achieve both selective and polarization selective property to reduce the size of the system." Applicants respectfully submit that Kaise discloses a polarization selective element that reflects s-polarization for all colors. This is not the case in the instant application. Kaise uses a single panel reflective panel (LCoS), whereas the instant application uses a 3 transmissive panel architecture. Once again Takada does not teach selectively reflecting s-polarization for one color only. This property is needed for our configuration. Applicants note that the instant application is simpler because it reduces the number of components.

Applicants submit that nothing has been found in Kaise or Takada, taken alone or in combination, that would teach or suggest the above-identified features of independent claim 20. Therefore, claim 20 is patentable.

V. DEPENDENT CLAIMS

The other claims in this application are each dependent on a dependent claim discussed above, and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In the event the Examiner disagrees with any of the statements appearing above with respect to the disclosures in the cited references, it is respectfully requested that the Examiner specifically indicate the portion, or portions, of the reference, or references, providing the basis for a contrary view.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,
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